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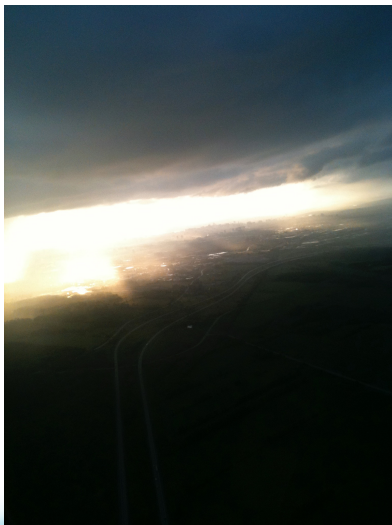
Assessing Phase Two

Healing Our Health System

Winnipeg Regional Health Authority

Submitted to

Dr. Brock Wright
Chief Executive Officer
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May 15, 2019

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Acquisitions and Analytics

Health Intelligence Inc. acquired and analyzed the available current data and is solely responsible for the related processes.

Independence

Health Intelligence Inc. is independent of the Manitoba Ministry of Health, Seniors, and Active Living, Shared Health, Winnipeg Regional Health Authority, Doctors Manitoba, and all professions that deliver care to the residents of Manitoba.

No potential or perceived conflicts of interest have been identified nor any potential or perceived conflicts of interest that are likely to arise in the future.

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Letter of Introduction

May 15, 2019

Shared Health Inc.
155 Carlton Street
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Attention: Dr. Brock Wright, Chief Executive Officer

Dear Dr. Wright:

Following is the independent quality assurance assessment of Phase Two of implementation undertaken by the Winnipeg Regional Health Authority (WRHA) to address some of the changes recommended in the Clinical and Preventive Services Plan for Manitoba (CPSP 2017).

This narrative is founded on a current state assessment that reflects experience, qualitative interviews with informed resources from Shared Health (SH) and WRHA, and merged with analytics derived from a refreshed data compendium. The data compendium has been provided as a companion document to this report that extends the environmental scan that reflected the current state applied in the development of the original CPSP.

It is important to stress the independence of Health Intelligence in the conduct of related research, and the absence of imposed preconceptions by the project principals. This backdrop has been fundamental to this undertaking. Equally important has been the willing and fully engaged participation by stakeholders in the interviews and the assistance in data acquisition.

Please do not hesitate to contact me regarding any required clarifications.

Respectfully submitted,

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1.0 Executive Summary

This quality assurance review is focused solely on the Phase Two implementation undertaken by the Winnipeg Regional Health Authority.

It begins with a summary of context and the qualitative and quantitative methodologies, in addition to data limitations. These limitations are not uncommon in the application of complex datasets, and do not diminish the integrity of the report, its conclusions, or its recommendations.

The findings are provided as qualitative prominent themes and reported observations, as well as quantitative observations.¹

Three potential jurisdictional lessons are summarized; of these two are considered most applicable to the current setting. The Accountable Care Unit (Saskatchewan) has possible benefit to the provision of appropriate multidisciplinary hospital care aligned with timely admissions and discharges, and characterized by care that is patient- and family-centred. A Manitoba extension of this model piloted in Saskatchewan is a further alignment with the multidisciplinary MyHealthTeams. The other transferable considerations are those advanced by the National Health Service England to assist in the navigation of a “clear path from inception to implementation” of decisions on service change.

Two NHS statements are prominent:

“Demonstrate that sufficient alternative provision, such as increased GP or community services, is being put in place alongside or ahead of bed closures, and the new workforce will be there to deliver it...”

“The planning and development of reconfiguration proposals are rarely linear. The most successful proposals ensure continuous discussion and involvement of the local population and key stakeholders throughout the process.”

As well, comments are made with respect to medical remuneration issues that became evident. This is not an extensive or comprehensive remuneration review; however, specific comments are warranted.

The section on recommendations to Shared Health and Winnipeg Regional Health Authority is based on merging key points from the qualitative and quantitative findings. The recommendations are intended to be focused and pragmatic, rather than inclusive of every issue identified in the report.

¹ The quantitative observations are derived from the data compendium provided as a companion document

The report is complemented by three appendices:

- Interview list
- Tabulated 2017 recommendations with highlighting of those most relevant to Phase Two
- Two data compendia provided as companion documents

The most significant conclusions of this report can be linked to the targeted recommendations, and are noted, as follows:

- Phase Two should be paused immediately while the underpinning process undergoes “repair and restore” activities, contemplated to enable a comprehensive risk assessment for the Winnipeg Regional Health Authority
- A pause does not preclude activities identified in the interim as appropriate, evidence-based, and aligned with risk assessments conducted at regional sites; however, these assessments should be regional in scope and patient-centred
- The drivers for ongoing activity are patient safety and system stability
- Workload and staffing instability in the nursing workforce are significant and not sustainable

While the report is granular and detailed, including the data compendium, the following distillation provides the essential considerations, provided in a non-prioritized order.

- The level of stakeholder engagement was high and the opinions candid
- Key datasets have been refreshed, collated, and analyzed
- The qualitative interviews were widely based and included leadership from Shared Health, Winnipeg Regional Health Authority, senior administration from all hospitals, and WRHA clinical leadership
- The general consensus is that the plan is correct and that the timelines are problematic; the exception to this is the Manitoba Nurses Union who disagrees with the plan and provided stories from front line nurses that reflect the challenges they face day-to-day; the challenges are real but not all can be aligned with the implementation of the plan
- The leadership groups are committed to the determination and application of a solution, particularly in the context of the underpinning drivers to this research and analysis, namely patient safety and system stability

- The current challenges can be tracked back to the absence of ongoing needs assessment and, particularly, to the absence of a formal regional risk assessment prior to decisions being made and implemented; regional risk assessment is being conducted currently, but was not undertaken in the critical 18 months prior to this
- The key conclusions are, as follows:
 - The plan is correct and the timelines are not workable
 - The goal remains better healthcare sooner - - the solutions needs to be realistic and coordinated across the health region with patient flow being seamless, appropriate, and timely, without impediment generated by residual silo mentality - this can be achieved only through a patient-centred plan that is regional in application
 - Stakeholders are prepared to face change if there is a solution that includes a stable continuum



2.0 Context

2.1 Background

Health Intelligence has been asked to assist Shared Health (SH) and the Winnipeg Regional Health Authority (WRHA) in an independent quality assurance assessment of WRHA Phase Two. As a status report, there is also alignment with the relevant sections of the CPSP and a targeted focus on the change-to-date and recommendations for further adjustment. This encourages reflection on both intended consequences and unintended consequences (whether positive or negative).

The research has benefited from strong engagement by the project principals and by the WRHA administrators and care providers. The assessment would have been inadequate in the absence of such participation and candour. As such, we are confident in our conclusions and recommendations.

This assessment with related recommendations pivot on two key issues, namely patient safety and system stability.

It became evident that there was some confusion about the focus of this review, and should be stressed that this quality assurance review relates to Phase Two of the implementation plan of the WRHA, and not the original (2017) CPSP.

One perspective to the background on Phase Two is a review of the WRHA timelines (current and previous) for the constituent elements, as provided in the following table:

Activity	Initial	Current
Based on evaluation report January 2018	WRHA May 2018	WRHA May 2019
Enhancement of Cardiac Services		
<ul style="list-style-type: none"> Acute Cardiac Care Unit will open at St. Boniface Hospital to increase capacity (adding two beds to make 10) 	Flexible	<p>The ACCU increased from 6 to 8 beds in January 2018. The plan to increase it from 8 to 10 has shifted around. It is linked to two things: a) transferring the capacity of the 3-bed CCU at HSC, which must be done by September 2019 when SOGH closes, and b) supply of critical care trained nurses, so as to not disrupt the staffing situation in critical care units across the city. Essentially, HSC critical care will keep the staff working on CCU because it's the same staff that operate the MICU. That capacity has to stay in place to absorb the critical care capacity from CH and SOGH.</p>
<ul style="list-style-type: none"> The number of beds on the inpatient cardiology unit at St. Boniface will increase from 32 to 48 to consolidated cardiac care at St. Boniface to ensure each patient has the care they need most 	June 2019 to align with changes at Concordia Hospital	<p>May 2019 due to increasing cardiac volumes and bed pressures - currently off-service beds and limited care after cardiac procedures as cardiologists not yet providing coverage</p>

Activity	Initial	Current
Community Intravenous Program		
<ul style="list-style-type: none"> This community IV service will move from its existing location at Lions Place to the former site of urgent care at Misericordia Health Centre in September 2018 (item remaining from Phase I plans) 	September 2018	November 2018
Emergency Departments		
<ul style="list-style-type: none"> Grace Hospital emergency department - new department opened May 29, 2018 	May 29, 2018	Opened May 29, 2018
<ul style="list-style-type: none"> HSC will expand emergency department to open a mid-to-low acuity area of treatment - January 2019 	January 2019	January 2019
<ul style="list-style-type: none"> Concordia Hospital emergency department will close June 2019 	June 2019	June 2019
<ul style="list-style-type: none"> The expansion of the St. Boniface emergency department continues, with new triage, waiting area and mid-acuity treatment space opening spring 2019 	Spring 2019	Spring 2019
<ul style="list-style-type: none"> Seven Oaks General Hospital emergency department will transition to an urgent care centre - September 2019 	September 2019	September 2019
<ul style="list-style-type: none"> St. Boniface emergency department renovations will be completed, with renovated high-acuity and resuscitation space opening summer 2019 	Summer 2019	Summer 2019
Intensive Care Units		
<ul style="list-style-type: none"> Services will shift out of Concordia and Seven Oaks General Hospital (in Spring and Fall of 2019 respectively) to HSC and St. Boniface Hospital at the same time as the changes to their emergency departments are made 	Concordia Hospital - spring 2019 Seven Oaks General Hospital September 2019	Concordia Hospital - spring 2019 Seven Oaks General Hospital September 2019
<ul style="list-style-type: none"> HSC intermediate expansion of ICU takes place September 2019 	September 2019	Intermediate expansion of ICU - September 2019

Activity	Initial	Current
Medicine		
<ul style="list-style-type: none"> Concordia Hospital and Seven Oaks General Hospital will shift capacity and focus to less serious community hospital care and transitional care services beginning in 2018 	Scheduled for June 2019 at Concordia Hospital and September 2019 at Seven Oaks General Hospital	Simultaneous shift to HSC and St. Boniface Hospital initiated January 2018 Completion at Concordia Hospital - June 2019 Completion at Seven Oaks General Hospital - September 2019
Mental Health		
<ul style="list-style-type: none"> Mental Health will consolidate from Grace and Seven Oaks General Hospital into HSC, St. Boniface and Victoria General Hospitals in December 2018 	December 2018	December 2018
Surgery		
<ul style="list-style-type: none"> HSC Surgical ICU will expand in August 2018 	August 2018	August 2018
<ul style="list-style-type: none"> Surgical slates will shift from Seven Oaks General Hospital to other sites in January 2019 	January 2019	Region-wide surgical consolidation completed between October 2018 and January 2019 - resulted in realignment of surgical slates among sites, with inpatient beds at Seven Oaks General Hospital transitioned to other sites as both inpatient and short-stay capacity

2.2 Scope

The following deliverables were provided as a guideline to scope:

A. Recommendations for WRHA Regarding Phase 2

- Is the planned bed map for the acute and sub-acute hospitals appropriate to meet the changing needs of the population?
- Based on current experience at VGH, how can LOS for patients in subacute beds be improved to support patient flow?
- What more can be done to support and encourage family physicians to provide hospital-based care?
- With regard to Concordia Hospital, what is the preferred option for supporting higher acuity post-op surgical care patients, and in-house urgent/emergent (code blue) coverage? With regard to the Walk-In Connected Care Clinic (WICC), that will occupy the vacated emergency department space, are there other options that should be considered to enhance the use of this space?
- Is it necessary at this time to open two additional beds in the Advanced Coronary Care Unit (ACCU) at SBH? If so, what would be the expected impact on critical care nursing and medical remuneration?
- How are emergency and urgent-care department wait-times, CTAS 4 and 5 trends in emergency departments, and inpatient lengths-of-stay (LOS) trending in WRHA, and what are the most likely explanations for recent changes?
- For planning purposes, are there any infrastructure, ICT and medical impacts that are not yet factored into the WRHA plans for Phase 2? Also, are there any infrastructure, ICT and medical impacts that arise from any recommendations that may come forward from this assessment?

B. Recommendations for Shared Health

- Based on experience, are there strategies or initiatives from other jurisdictions that we should consider related to clinical consolidation or other large-scale transformation changes?

C. Other Considerations

- Trends and implications in specific and relevant areas of medical remuneration

2.3 Risk Assessment

Two internal risk assessments have been made available, one from each of the WRHA and the Concordia Hospital. They are summarized, as follows:

2.3.1 Winnipeg Regional Health Authority Risk Assessment

A WRHA risk assessment has been assembled since a variety of dates in March 2019. It will be considered relevant as no previous risk assessment was identified prior to effecting the implementation decisions for Phase Two. All elements of the following risks have been categorized as “high.”

Three identified high risks are considered resolved or partially resolved by WRHA:²

- Maintaining full service in the Concordia Hospital emergency department was noted at risk due to nursing staff vacancy and skill mix. One of four mitigating strategies is resolved, namely the implementation of a low acuity EMS protocol between 19:00 and 07:00³
- Insufficient capacity for ICU transferrable patients in WRHA was noted at risk and aligned with two mitigating strategies; one of these is considered resolved by WRHA, namely a meeting with the critical care program to identify the level of risk and potential solutions.⁴
- Staffing for subacute care at Concordia Hospital was noted at risk, with family physicians expressing concerns about new models of care, particularly relating to continuity of care;⁵ this was noted as resolved after a meeting on April 17, 2019 that addressed the short-term concerns

Unresolved high risks include:

- Maintaining full service in the Concordia Hospital emergency department was noted to require:
 - Monitoring staffing levels and mix and the management of further staff movement
 - Implementation of a constant low acuity EMS protocol planned for May 14, 2019, preceded by the development of a communication strategy
 - Consideration of the reduction of emergency department hours

² The spectrum of WRHA risk was made available by the CEO of WRHA

³ This protocol stops the transport of CTAS 1 and 2 patients to Concordia during that time

⁴ This meeting occurred on April 18 and resulted in a commitment to a subsequent meeting with critical care, internal medicine, and emergency medicine to develop policies and guidelines to prioritize transferable patients; the working meeting was scheduled for May 3, 2019 with a deadline for a draft document set for May 24, 2019

⁵ It has been estimated that up to 50% of family physicians could abandon subacute care by June 2019

- Maintaining the intensive care unit at Concordia Hospital due to early nursing resignations⁶
- Early resignations of respiratory therapists are a risk to patient care and safety;⁷ the mitigation strategy is to reduce two ventilator beds and include the service lead in the coverage of shifts; efforts for action include posting vacancies, encouraging extra shifts by respiratory therapists, and meeting to facilitate change management
- The overcapacity protocol is not matched to bed mapping; therefore, the protocol is subject to revision and a lessons-oriented workshop has been planned
- The staffing vacancies in critical care units (including region-wide nursing vacancies) are being mitigated by two additional critical care courses (May and September 2019) and regional and national postings
- The absence of House Medical Officer (HMO) coverage at the Concordia Hospital is being mitigated through continuing recruitment efforts and meeting with Shared Health to discuss potential options
- The requirement of a new general internist at St. Boniface Hospital is being mitigated through a proposal to add a new physician to assist with the increased volume of admissions
- Physician burnout at acute care hospitals is subject to the development of strategies to address stress and workload; HSC is developing internal strategies to sustain medicine coverage and to examine options to increase patient flow across the health region
- Physician coverage for cardiac services at St. Boniface Hospital is an issue being discussed with MHSAL with respect to medical remuneration⁸

⁶ Staff are being monitored and positions to be transferred will be controlled; as well, the reduction of one intensive care bed will continue to be monitored as negotiations continue with nursing staff to pick up additional shifts and to adjust rotation to maximize coverage

⁷ The total FTE for respiratory therapists is 10.4; however, the current staffing is 4.7 FTE (including the clinical lead) and 1.0 FTE in the laboratory

⁸ The issue of medical remuneration for the ACCU and 6AS have been determined to be unresolvable in the short-term, resulting in a delay in opening 6AS

2.3.2 Concordia Hospital Risk Assessment

There are numerous risks identified at Concordia Hospital and these have been logged accordingly, using varied risk strata. At the individual level, these risks are substantial and, in the aggregate, are critical. They are summarized, as follows:

- The absence of a House Medical Officer to coincide with the closure of the emergency department and critical care unit
- Physician disengagement with significant numbers of family physicians, anaesthesiologists, and surgeons currently preparing to exit from hospital care (in no small part due to medical-legal risks)
- Inadequate level of care at night due to the lack of respiratory therapist support
- Early resignations by respiratory therapists jeopardize patient safety and have led to the reduction of two ventilator beds and widespread care gaps
- The destabilization of staffing the emergency department associated with multiple resignations is escalating to a high vacancy rate and staff burnout, necessitating a low acuity protocol and the use of agency staff
- Early resignations by intensive care nurses has escalated to a high vacancy rate and reduction of one intensive care bed, necessitating interim staffing strategies that do not appear sustainable
- The opening of a Walk-In Connected Care Clinic (WICC) has been delayed further until June 25, 2019 due to costing, staffing, training, and recruitment of nurse practitioners
- The continued operation of the 12-bed temporary subacute care unit is threatened by the inadequacy of physician, nursing, occupational therapy, and physiotherapy staffing; as well, the WRHA has announced that no decision has been made regarding these beds as their necessity is now unclear
- Opening the assessment unit early does not appear to be feasible
- Medical coverage for subacute care is not adequate and may be at greater risk going forward
- Concern that patients will continue to present at the emergency department after its closure
- Under-serviced outpatient care, including the Dynacare decision not to operate in the WICC
- Gaps in equipment planning exacerbated by outstanding issues, including emergency services, intensive care, assessment unit, and endoscopy

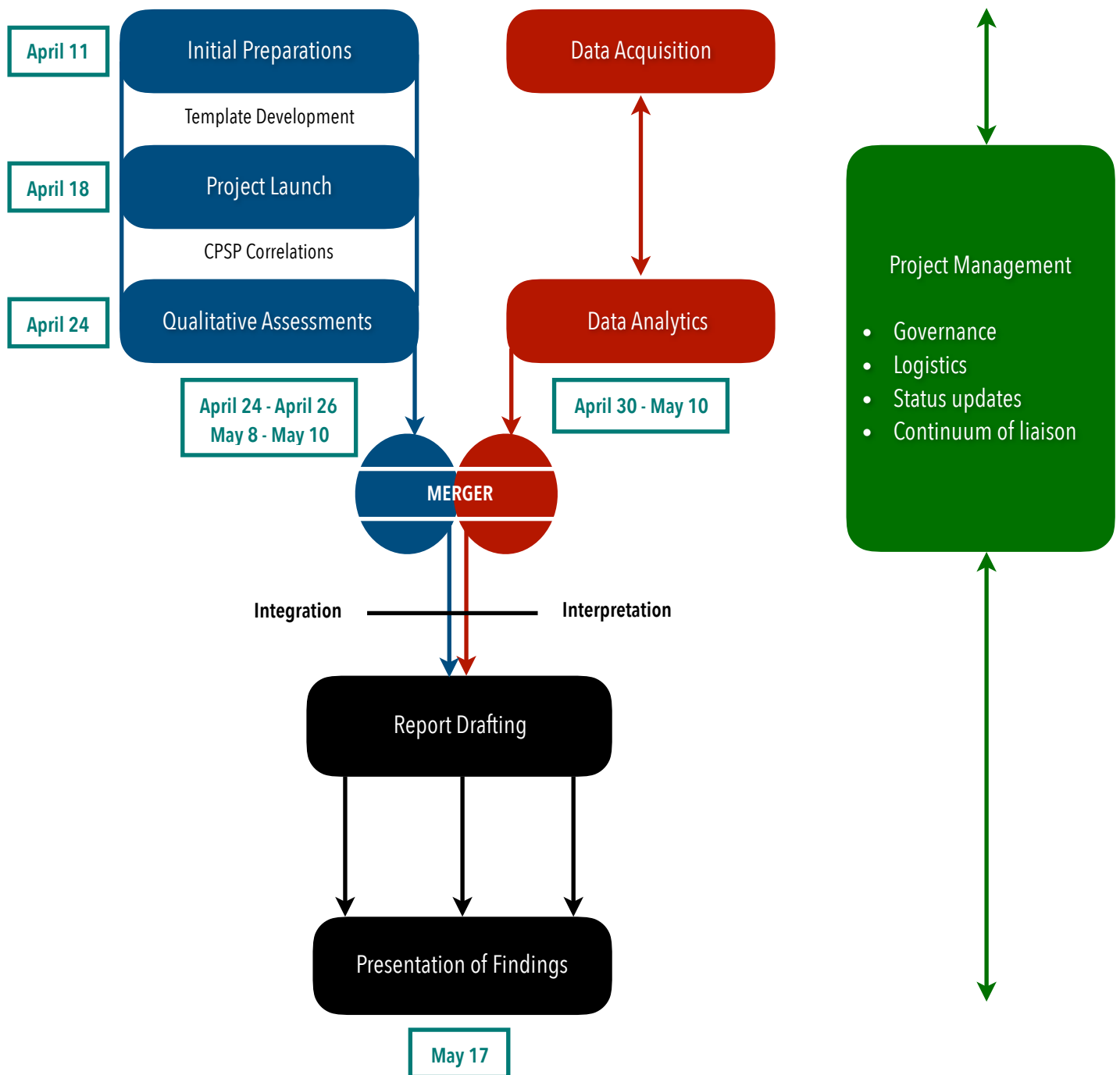
- Reduced diagnostic imaging support after closure of the emergency department, with a secondary impact on surgical services
- Inadequate planning for the transport of critically ill patients following the reduction of acute services
- Seriously low staff morale across the hospital
- Requirement to finalize criteria for eligibility for admitting patients to Concordia Hospital and the absence of a clinical pathway if these criteria are not satisfied
- Lack of success in ensuring a sustainable House Medical Officer model
- Continuing outstanding status for staffing of essential services after consolidation is fully implemented

There are significant efforts by Concordia Hospital to protect patient safety and the quality of care in the face of these major operational issues. Despite these efforts, satisfactory resolutions are not pending or, at this point, foreseen.



3.0 Approach

3.1 Overall Schematic of Work Plan



3.2 Qualitative Approach

The interview process for this assessment can be summarized by categories, as follows:

- Week one:
 - Senior management of Shared Health
 - Senior management of Winnipeg Regional Health Authority
 - Program leadership (WRHA)
 - Clinical leadership (academic and WRHA)
 - Concordia Hospital administrative and clinical leadership
 - Health Sciences Centre administrative leadership
- Week two:
 - Senior management of Shared Health
 - Senior management of Winnipeg Regional Health Authority
 - Program leadership (WRHA)
 - Clinical leadership (academic and WRHA)
 - Manitoba Nurses Union leadership and members
 - Victoria General Hospital administrative and clinical leadership
 - St. Boniface General Hospital administrative and clinical leadership
 - Grace Hospital administrative and clinical leadership
 - Seven Oaks General Hospital administrative and clinical leadership
 - Health Sciences Centre clinical leadership
 - Ministry of Health, Seniors, and Active Living leadership

Each interview was conducted using a standardized introductory statement of mandate and scope, a generic interview template, and a tailored interview template. The key points from each meeting were noted and summarized by Health Intelligence, with whom the responsibility fully rested; no other attribution to reported themes should be assigned.

A detailed list of interviews is provided as [Appendix A.1](#).

3.3 Quantitative Approach

The following sequence describes the approach to data acquisition and analytics:

- Review of datasets acquired and analyzed from 2015 through 2017
- Review of potential data requirements to align with mandate and research questions
- Development of data menu
- Review of data menu with WRHA and MHSAL resources
- Primary data acquisition
- Secondary data acquisition
- Data collation
- Analytics

The primary data requirements were determined, as follows, *including working notes developed during an initial meeting:*

i Discharge Abstract Database (DAD) Data

- All DAD records related to activity conducted in WRHA hospitals⁹
- Data should include fiscal periods prior to implementation of the current restructuring plan to the latest data available; this may include a partial fiscal year's data for the most recent year; the fiscal years requested would include 2016/2017, 2017/2018, 2018/2019
 - *2018/2019 will not be complete until this summer, so partial year data will be used - Winnipeg sites are the furthest behind in the province, so lowest common denominator for all Winnipeg sites might be six months, or less*
- Full, record level data are requested
 - *Requirement to scramble personal health identification numbers*
- Data in ASCII format (.csv, with double-quoted, text delimiters, and full record layout) or in SAS7bdat format (with field descriptors)
 - *Not an issue*

⁹ Should there be a question about where WRHA-resident patients are receiving services, this request could be broadened to include any additional records for WRHA-residents who have received care at facilities outside of WRHA

- Confirm that DAD includes acute inpatient activity, sub-acute activity, and day-surgery activity
 - Confirmed with one possible exception - need to check that rehabilitation services are reported in DAD and not in the National Rehabilitation Reporting System

ii National Ambulatory Care Reporting Systems (NACRS) Data

- All NACRS records related to activity conducted in WRHA hospitals¹⁰
 - Data are ED records and wait times with only recent data including a diagnosis or presenting complaint
- Data should include fiscal periods prior to implementation of the current restructuring plan to the latest data available; this may include a partial fiscal year's data for the most recent year; the fiscal years requested would include 2016/2017, 2017/2018, 2018/2019
 - Is close to final (may be 11 months) as reporting occurs monthly automatically
- Full, record level data are requested
- Data in ASCII format (.csv, with double-quoted, text delimiters, and full record layout), or in SAS7bdat format (with field descriptors)
 - Not an issue
- Confirm that NACRS includes emergency department (ED) activity. Is any other activity reported through NACRS that is relevant to this review?
 - Only basic reporting (Manitoba differs from other jurisdictions where NACRS for day surgery and ambulatory clinics are reported)

iii Wait Time Data

- Is there a source for wait time data that exists apart from DAD or NACRS data elements?
 - EDIS is the best source for ED wait times - surgical, diagnostic, and cancer treatment is submitted through a portal for a monthly KPI report that could be provided

iv Population Data

- Current population estimates for the years corresponding to the fiscal years identified in the DAD and NACRS requests above
 - Confirmed

¹⁰ Should there be a question about where WRHA-resident patients are receiving services, this request could be broadened to include any additional records for WRHA-residents who have received care at facilities outside of WRHA

- Data should be at the sex-by-age level - single-year cohort estimates are preferable, but five-year cohorts are satisfactory, as well
 - Confirmed
- Data should be broken down by geography at the zone, community area, and possibly at the forward sortation area (FSA) levels
 - FSAs can be provided, although are less meaningful than aggregated zones, community areas, and regional health authorities

v Bed Allocation Data

- Allocation and counts of beds by facility and site across WRHA both before and during the process of implementation of the PCPSP
 - Regional data are provided - no validation of accuracy
- This would include all levels of beds within the hospitals
 - May require regional validation, depending on the level of specificity
- Changes that have occurred during the process of implementation should be identified and the points at which they became live
 - Only regions can track the timing of bed or category changes

vi Primary Care Data

- To address item #3 above, this raises the possibility of acquiring primary care data
- The focus would be at the physician level and require review of individuals' patterns of practice
 - Dependent on source data - such as fee-f-for-service data for family physicians
- This could entail level of services provided, types of services provided, daily patterns of service, and any already existing service provided in hospital

3.4 Data Limitations

- Data were available for the full 2018/2019 fiscal year for emergency department activity through EDIS; Discharge Abstract Data (DAD) were only available up to and including December 2018 (or the for the third quarter of fiscal year 2018/2019)
- Some of the anticipated system changes were only recently implemented with the likelihood that impacts might not be reflected in the available data
- Some of the anticipated system changes will not be implemented until sometime later this year, with that impact yet to occur
- Some variation in practice and service patterns is to be anticipated even without the implementation of service realignments such as what is being conducted through the Healing Our Health System initiative
- The intent of this analysis was not to take a micro level view of each system disruption nor to try to explain each, but to take a more macro level view of the system as a whole
- These results do not reflect what may be happening from an operational perspective – e.g. with respect to staffing and physician resourcing



4.0

Findings

4.1 Qualitative Themes and Observations

A qualitative assessment was made possible by the cooperation and candour of a significant number of informed resources across the WRHA. The interpretation of the collected information was the responsibility of Health Intelligence and should not be attributed elsewhere.

The key points have been organized into two categories, namely [Prominent Themes](#) and [Reported Observations](#), where the prominent themes cross multiple sectors and the reported themes are considered significant, albeit with less significant reference.

[4.1.1 Prominent Themes](#)

The following prominent themes are presented in a non-prioritized order:

1. [Site-Specific Enhanced Primary Care](#)

To varying degrees, primary care physicians do not provide the level of hospital care observed in the past; this has occurred for multiple and well-documented reasons. Arguably, the issue is most prominent at Concordia Hospital and not thought to be significant at Seven Oaks General Hospital. A consensus opinion is that it is not feasible to consider a strategy to repatriate the family physicians who no longer provide any sort of hospital care; however, evidence suggests that new entrants to practice have been informed on the value of maintaining hospital work as part of comprehensive care.

Interest has been expressed in Accountable Care Unit as described in the report, particularly with the variant of a hospital-based unit as an extension of MyHealthTeams. This could be run as a two-site pilot with baseline and program metrics.

2. [General Ideology of Transformation](#)

[There is a very strong consensus that the fundamental and critical flaw in the Phase Two process is the absence of timely risk assessment prior to decision-making.](#)

There are no pre-determined conclusions to this work, and a wide range of options to contemplate. Quality care remains the rationale behind system transformation. Otherwise, system transformation lacks logic and desirable outcomes.

The two driving forces are patient safety and system stability (and will continue to be); the centrepiece of an implemented plan is capacity building and, for rural communities, when possible, to provide care closer to home.

System stability, particularly, requires an immediate solution that maintains staff stability and appropriate patient care. The immediate solution requires a commitment to permanence with a bridge to a future state based on risk assessment and continuing needs assessment. The bridge requires support from clinical governance, urgent care centres, patient flow analyses, patient transportation protocols, PECS, and new models of care across the region.

The majority of those interviewed believe the clinical and preventive services plan is the correct plan, as is the concept (but not the timelines) of WRHA Phase Two. A contrary opinion was expressed by the Manitoba Nurses Union (MNU) and front line nurses brought together by the MNU.

That majority who support the plan objected to the timelines and execution of the plan, with a consensus that the process must be stopped now and retooled after a proper risk assessment. It was urged not to change course, just the timelines.

Inherent to a revised execution of the plan is the augmented alignment among public health initiatives, a primary care continuum, and acute medicine. The extant approach has lacked a functional interface within such an alignment, and represents a failure of integration and, in fact, reveals re-establishment of siloed care, exacerbated by thin baseline and real-time data and inadequate measurement of health status and need.

Overall, confidence has been lost in Phase Two. Many are convinced that the reduction of lengths-of-stay is impeded by increasing acuity and the absence of initiating new models of care, particularly for care that is hospital-based and not acute in nature. The underpinning flaw has been stressed repeatedly as the absence of a timely risk assessment.

There is general concern that there is inadequate capacity to care for inpatients after the acute phase of an admission, resulting in challenges in bed access and weak turnover data; however, this is thought to be correctable over time, and is a constituent element of the bridge requirement to repair and restore. The bridging process provides latitude in addressing staffing and labour issues in a reflective fashion based on risk assessment.

It has been noted that length-of-stay data can be misleading; a three day length-of-stay at one site where the patient may be transferred can lead to three-day stays at two other institutions, and an actual nine-day length-of-stay becomes recorded as three three-day lengths-of-stay.

3. Consolidation of Surgical Services

Overall, the consolidation of surgical services has been satisfactory, although concern has been raised about peri-operative and postoperative care at sites with diminished acute care services.

4. Provincial Emergency Consulting Service (PECS)

PECS will be a high-value addition to care in Manitoba, where providers in rural and remote centres have access to expert advice and transportation guidance for seriously ill patients. There is widespread support for PECS both remotely and within the WRHA. Nonetheless, it remains an unfunded program.

A further unresolved issue is the siting of the PECS physician. Consensus has identified two possibilities, namely Health Sciences Centre and Concordia Hospital. The advantage of the Health Sciences Centre are that, to some extent, it informally provides such a service today as the provincial hospital and a high-functioning emergency department staff. As well, back-up physicians are readily available. The two disadvantages are that the informality precludes efficiencies that would accompany a dedicated resource and that the level of activity at this department could diminish access. The advantage of a re-engineered Concordia Hospital is that the PECS physician would have greater access and efficiencies; as well, the physician could be part of the onsite resuscitation for Code Blue and Code 25 at Concordia Hospital (currently 10 and 25, respectively, on an annual basis). There would, however, need to be discipline and protocols to ensure that a PECS physician sited at Concordia Hospital was not drawn into emergencies at the hospital other than "life and limb."

There is wider support for PECS to be sited at the Concordia Hospital rather than the Health Sciences Centre. Regardless, careful metrics and monitoring would be required for the first year to ascertain the correctness of this primary decision. As well as a PECS physician, the selected site would require availability of a Respiratory Therapist.

5. Concordia Hospital Emergency Department

The current level of frustration and uncertainty is thought to be a consequence of concerns not being heard over the past 18 months. The derived internal solutions include:

- Achieving patient safety for the extensive perioperative and post-operative patient population
- 24-hour seven-day urgent care
- Shift of current timelines so that one year of repair and restore can be achieved

- Integration of the House Medical Officer (HMO) model¹¹
- Abandon the WICC model for the hospital and the Clinical Assessment Unit in favour of the urgent care centre
- Regional restoration of a homogeneous patient-centred system with timely and essentially seamless patient flow

The imminent closure of the emergency department at Concordia Hospital has generated concern from the public and from the Concordia Hospital surgeons (due to peri-operative and post-operative emergency and urgent back-up, including Code Blue and Code 25). The surgical unrest has included contingency plans to discontinue service if a satisfactory arrangement is not determined and implemented.

There have been approximately 75 emergency department daily visits at Concordia Hospital, previously in the 100 range. There had been 14 to 15 ambulance visits daily until the protocol was implemented to discontinue serious emergencies during the evening and night shifts. Of the 75 visits, 43 to 47 are CTAS 1 to 3 (vast majority CTAS 3).¹² About 26% of recent visits are EMS arrivals, although these data will shift with the evening and night protocols and, if there was conversion to urgent care, the EMS arrivals would cease.¹³

Admissions to Concordia Hospital (almost all family medicine admissions) have dropped over the last three months, from an average of 13.1 one-year ago to 8-10 daily in the last three months.

Inter-facility patient transfer is already challenged by moving six patients daily; estimates are that this number, unchecked, could grow to as high as 30.

The 2017 Clinical and Preventive Services Plan for Manitoba recommended that the six WRHA hospitals convert to three acute care with emergency departments plus intensive care; the other three were targeted for 24-hour, seven-day urgent care centres. The underpinning reasoning persists today and, as such, the closing of the emergency department at Concordia Hospital would best be transformed to an urgent care centre, providing both community care and hospital inpatient back-up.

¹¹ There are 6.0 current applicants for 4.2 FTE HMO positions

¹² Acknowledging some degree of artificiality in CTAS scores beyond an initial triage metric,

¹³ It is interesting to note that the Victoria General Hospital conversion to urgent care increased daily volumes from 90 to 120 and increased the CTAS 1 and 2 numbers

6. Clinical Governance

The existing clinical governance is fragmented by multiple roles and reporting: academic leads, Shared Health leads, and WRHA leads. The fragmentation can be confusing and is redundant; academic leadership should be protected regardless of the remaining clinical leadership roles (with a provincial scope). These remaining roles should be aligned with Shared Health as there is no gain to an additional WRHA role that would continue fragmentation.

7. Walk-In Connected Care (WICC)

WICC is provided by nurse practitioners, physician assistants, and registered nurses, typically in Access Centres. It has also been suggested that WICC services could be part of the replacement services after closure of the emergency department. Not wanting to disrupt what is in place now, this is not a recommended option from the assessment, since the implementation of 24-hour, seven-day urgent care centres would provide more appropriate and timely care in addition to inpatient back-up services.

8. Bed Maps

Bed mapping is seen as inaccurate and misleading, based on cost rather than need. The inaccuracy of bed mapping is seen as a consequence of four factors:

- Ill-defined models of care
- Initially predicated on access block data
- Premised on perfectly working and flowing care for inpatients with less than acute illness
- Inattention to medical ICU expansion

Value has been noted where early discharge planning has been implemented and seasonal adjustments to bed maps have been implemented.¹⁴

4.1.2 Reported Observations

The following reported observations are presented in a non-prioritized order:

1. Acute Cardiac Care Unit (ACCU)

Other than the position of Cardiac Sciences, there is no support for increasing the number of ACCU beds from eight to ten. Arguments that advocate an increased focus on a future state, to some degree, founder against more circumspect and compelling thinking:

¹⁴ Failure to adjust seasonally (especially winter and summer) has been identified as one significant driver to failures of the planning process

- Current occupancy of 75%
- Expanded ACCU would further deplete the number of available critical care nurses
- The hours and intensity of physician work in ACCU are much lower than in Critical Care; nonetheless, it has been suggested that ACCU services would be compensated at a high percentage of the scale for Critical Care; there is no cogent argument in favour of expansion at this time

2. Consolidation of Mental Health Services

Overall, the consolidation of mental health services has gone well, although unexpected medical, psychiatric, emergency, and social issues have arisen due to the dramatic increase in the adverse consequences of the use of crystal methamphetamine. Overall, the shift of mental health services from five sites to three has improved the management of these services significantly.

Mental health resources have been augmented beyond hospital care into community resources, although further inroads are required. The infrastructure inadequacy that still requires correction is increased emergency department capacity for mental health patients, including locked units.

A recent inability to transfer mental health patients to inpatient beds in a timely fashion has, on occasion, led to significant time in emergency departments for admitted patients. At the same time, there has been a marked improvement (region-wide) in the ratio of actual-length-of-stay to expected-length-of-stay (a significant decrease from 1.8 to 1.3 over the past four fiscal years).

A significant development in mental health services is the first placement of a clinical psychologist (0.4 FTE) in a MyHealthTeam; while a slow and somewhat delayed start, it can be anticipated that this will initiate extensions elsewhere, as well.

3. Cardiac Surgery Wait Lists

The previously negligible wait list for cardiac surgery has grown to approximately 100 patients. A significant contributing factor has been under-staffing of the cardiac nurse specialists and the inability to sustain nursing overtime. As well, critical care nurses are floated from intensive care to shore up nursing care in the emergency department; this is also not sustainable in the context of shortages of critical care nursing.

4. Stressors on Nursing Care

Across all WRHA hospitals, nurses have been inadvertently trapped by previously unknown levels of stress, exacerbated by a mixture of unpredictability and under-resourcing that have been fallouts from

consolidation. While this may, in theory, be corrected over time, the current challenges are described as severe across hospital services and programs, manifest by resource shortages, overtime requests, and mandated overtime. It is entirely predictable that the quality of nursing care to patients is and will be compromised.

Significant details of compromised care and nursing distress were provided by front line nurses from five hospitals through convincing examples across multiple departments. The concerns reflected those raised during visits to the hospital sites and the need for correction of the stressors. It has reached the point where nurses can fear going to work as they may not be able to return home due to requested and mandated overtime.

5. General Observations on Emergency Departments

There is a deep-seated unhappiness in emergency department nurses and physicians. The emergency department leadership, however, supports the principal of changing timelines, not changing the course. The 2017 plan for three emergency departments and three urgent care centres continues to be supported as the centrum for realigning acute care in the region.

The shortage of readily available emergency department beds reflects a “stack-up” of patients, adversely effecting wait times and lengths-of-stay. Patients with CTAS scores of 4 and 5 are not considered significant factors and, in fact, are diversions from the main problem. The central concern is inpatient capacity and patient flow creating a bottleneck.

Concerns were expressed that the planning for the region was implemented by directive rather than reasoned consultation. The immediate consequence is at Concordia Hospital and Seven Oaks General Hospital where many emergency department staff are seeking employment elsewhere. The greatest adverse impact has been on skilled nursing staff rather than medical staff; nonetheless, a short-term and intermediate-term challenge is the medical staffing of expanded urgent care centres. Also, concern was raised about the sustainability of the emergency department at Seven Oaks General Hospital until September.

Across the region, there is an average of 30 patients in emergency departments waiting for inpatient beds. The Seven Oaks General Hospital emergency department daily volumes have decreased by approximately 30%; this has resulted in a greater number accessible beds which, in turn, increases EMS traffic and acuity. The leadership is consistent in the belief that changes at Concordia Hospital and Seven Oaks General Hospital be staggered.

6. Cardiac Sciences

The mandate, goals, and opportunities offered by Phase Two are clear to Cardiac Sciences. The underpinning concerns to this group are continued large disparities in access to cardiac care for geographies and for vulnerable populations. Overall, however, it is thought that consolidation to three acute care sites is good for cardiac sciences and the outcomes of care. This includes further sifting from Health Sciences Centre to St. Boniface Hospital.

Cardia Sciences supports the expansion of ACCU beds and the required adjustments to medical remuneration, as well a revised bed map for inpatient services at St. Boniface Hospital, including expanded beds and coverage for clinical teaching.

7. Primary Care

The short-term priority for primary care is stabilization of community and hospital services at Concordia Hospital. Ideally, from the perspective of communities, will be uniformity in services and expectations of the populations served, regardless of geography. Unfortunately, despite the extant mantra of continuity of care, this essential element is deteriorating, in part due to unfulfilled promises.

The road to stability can be built upon four foundation elements:¹⁵

- Three regional urgent care centres, as originally planned
- Commitment to distributed education beyond the established tertiary sites
- Repatriation of prenatal care and low risk maternity care beyond the established tertiary sites
- Re-establishing patterns of commitment o hospital care by new program graduates¹⁶

8. Victoria General Hospital

The consolidation success, to date, at Victoria General Hospital has been attributed to supportive staff within a learning organization, as well as a cogent internal risk assessment and a positive relationship with unions.

¹⁵ For primary care, Victoria General Hospital is considered stable, unlike Concordia Hospital and, to a lesser degree, Seven Oaks General Hospital; it is important to note that the leadership at Seven Oaks General Hospital considers the status of primary care to be stable

¹⁶ Of the 62 residents graduating in the current year, one-third are seeking positions that include hospital care

Replacing the emergency department with an urgent care centre not only provides a code team within the hospital, and has witnessed an increase in patient volumes. The daily volume of 90 patients in the emergency department has grown to 120 in urgent care with increases in CTAS 2, 3, 4, and 5 patients. The ongoing concern is the sustainability of this workload with 35% fewer nurses. Approximately 80% of the emergency physicians transferred to urgent care, along with a small number of physicians previously providing urgent care at the Misericordia Health Centre.

The absorption of mental health services has gone well and is anticipated to improve further later in 2019 with completion of a sectional mental health pod in the urgent care centre.

Caring for patients who are not acutely ill¹⁷ has been successful through an internal education process that integrates all staff, from nurses and physicians through to housekeeping staff and volunteers. The other statistical shift of note has been the care of inpatients by family physicians, previously at 10% of all inpatients and, currently, down to 1% to 2%.

An area to be improved at this site is extended lengths-of-stay for patients not considered to be acute; the trends have been in the range of 23 to 30 days, where a realistic target is closer to 14 to 20 days. As well, the ALSO/ELOS ratio is excessively high at greater than 2.0 where a target of 1.0 or slightly higher should be achieved. These data may improve through seasonal planning, time-of-day early discharge planning, models of care, and a flexible contingency plan.

9. Grace Hospital

Much of consolidation has gone well at Grace Hospital, although the numbers of nursing staff and overtime expectations are a continuing problem, despite transfers from other sites (and variable experience profiles).

The emergency department volumes have increased from approximately 90 daily to approximately 120. Approximately 33 to 45% of these patients are CTAS 4 and 5; some assistance is provided by a physically connected WICC (staffed by a nurse practitioner); that notwithstanding, the frailty of CTAS scores is underlined by a number of this group requiring admission to hospital. Overall, there are a greater number of hospital admissions than anticipated.¹⁸

¹⁷ This patient population has undergone a complexity evolution

¹⁸ Prior to Phase One, the admission rate was 11% and, one year after the opening of the new emergency department, the admission rate is approximately 15%

The current deficiencies in the medical staff roster are emergency medicine, internal medicine, and hospitalist care. Critical care beds have expanded to ten, with eight nurses working a day shift and seven at night. In the fall of 2019, a further 4.2 FTE nurses are expected to be added to this pool.

The alignment of community care with hospital care has been disappointing, evidenced, in part, by the absence of support for a Clinical Assessment Unit.

Resolution of challenges across sites has been impeded by inconsistent inter-facility communication, particularly with Health Sciences Centre since its transfer to Shared Health. As well, the 30% increase in emergency department visits associated with consolidation have posed substantial risk to diagnostic imaging at the hospital:

- The single computerized tomography scan is unreliable and, not infrequently, not functional
- The single fluoroscopy unit is unreliable and, not infrequently, not functional
- The gamma camera needs replacement
- No echocardiography

10. St. Boniface Hospital

After the completion of Phase One of the WRHA implementation plan, the volume and acuity of emergency department patients at St. Boniface increased, as did the acuity challenges for internal medicine and subspecialties, and CTAS scores 1 through 3 increased generally. In no small part, this has reflected the absence of an effective patient flow strategy. Fiscal challenges for the hospital can, in part, relate to dollars not following the patients from other locations. As well, it has been noted that the challenges in the intensive care unit are linked to the absence of a timely regional risk assessment.

As an overview:

- Every unit is over census
- Acuity is higher across all units
- Staff and nursing workload has increased substantially, and morale is low
- Extant funding models do not align with contemporary medical care
- Necessary infrastructure support has not been put in place - investment is required in the emergency department, intensive care unit, and critical care
- The pending changes at Seven Oaks General Hospital will exacerbate the current state

11. Seven Oaks General Hospital

Using the four criteria provided by WRHA, there are 132 “subacute” beds at Seven Oaks General Hospital; of the eight to ten daily admissions from the emergency department, none fit those criteria. Most often, these patients are the frail elderly. Dialysis continues to be site-defining morbidity, with 26% of admissions being renal. Overall, the acuity level of admissions is high.

The renal program has achieved efficiencies for both admissions and lengths-of-stay. The backdrop, however, is new variation in the nursing ratios in both the emergency department and the medical ward. The quality solution for this is to change the nursing ratio in the renal unit. The financial solution appears to rest with a new medical remuneration model that aligns with contemporary care and multiple morbidities. The expressed concern is that the patient care will worsen in the absence of an emergency department and intensive care unit. This will be exacerbated by the challenges of patient transportation in the region. All of these issues are attributed to the absence of a timely regional risk assessment.

4.2 Quantitative Observations

The metrics of data analysis can be characterized, as follows:

- That acquired data are valid is the key underlying assumption
- That data harmonization is essential
- That statistical analyses adhere to established processes and protocols
- That limitations are articulated in a clear and comprehensive fashion
- That interpretation of the quantitative analytics can be free-standing, aggregated with other datasets, and/or aligned with qualitative themes

Qualifying data have been collated in a data compendium as a companion document to this report. Interpretations have been included in the companion; others have been brought forward in support of qualitative themes; others raise questions that require further attention.

Following are key narrative descriptions, abstracted from interpretations in the data compendium, in a non-prioritized order but allocated to five sections:

- [Population](#)
- [Bed Map](#)
- [Wait Times](#)
- [Emergency Department Activity](#)
- [Inpatient Activity](#)

Please note that slides 91 through 172 in the second data compendium are the analytics generated by the WRHA. They have been included due to their comprehensiveness and relevance; the data acquisition and analytics conducted by Health Intelligence apply specific datasets constructed for this assessment and will vary from those of the WRHA, to some degree, by content and timeframe.

A Population

- Over the past two years, there has been a significant increase in the older adult population, and a substantial decline in the youth and young adult population
- An elderly population typically demonstrates a higher rate of utilization of the emergency department and other hospital services

B Bed Map

- Concordia Hospital
 - Reduction in critical care beds beginning FY 2018/2019
 - Reduction in medical beds during Q.4 FY 2018/2019
 - Additional surgery beds during Q. 4 FY 2018/2019
- Grace Hospital
 - Reorganized surgery beds FY 2017/2018 and 2018/2019
 - Two additional critical care beds in FY 2017/2018
- Health Sciences Centre
 - Reorganized mental health beds FY 2018/2019
 - Reorganized medicine beds FY 2018/2019
- St. Boniface General Hospital
 - Geriatric rehabilitation removed in FY 2017/2018
 - Reorganized medicine, cardiac care, and women's health beds
 - Two additional critical care beds
- Seven Oaks General Hospital
 - Surgery removed in FY 2018/2019
 - Medicine augmented in FY 2017/2018 and 2018/2019
- Victoria General Hospital
 - Critical care removed in FY 2017/2018
 - Mental health added in 2018/2019

C Wait Times¹⁹

- **Magnetic Resonance Imaging**
 - Number of examinations from FY 2016/2017 to 2018/2019
 - Nothing remarkable
 - Minimal increase but characterized by a declining rate of increase
 - The slight increase noted was mainly at Health Sciences Centre
 - Wait list FY 2016/2017 to 2018/2019
 - Falling by month and by year
 - Wait times (weeks) FY 2016/2017 to 2018/2019
 - Falling overall and stabilized
 - Early institutional variation
- **Computerized Tomography Scans**
 - Number of examinations from FY 2016/2017 to 2018/2019
 - Overall number of scans increasing
 - Volume at Health Sciences Centre decreasing and volume at Grace Hospital increasing
 - Wait list FY 2016/2017 to 2018/2019
 - Following an overall trend line of decline in the wait list, there was an increase in FY 2018/2019
 - Decrease at Health Sciences Centre in Q.3 FY 2017/2018
 - Increase at Health Sciences Centre December 2018 to February 2019
- **Echocardiography**
 - Number of procedures from FY 2016/2017 to 2018/2019
 - Gentle decrease followed by a steady trend of increased volumes
 - Median wait times (weeks) from FY 2016/2017 to 2018/2019

¹⁹ Wait times data need to be viewed with caution due to inconsistent measurement criteria, absence of information on medical necessity, and duplicate entries

- Delayed for medical reasons generally on the upswing
- Delayed for personal reasons is erratic
- Hip and Knee Replacements
 - Number of procedures from FY 2016/2017 to 2018/2019
 - Modest volume increases in both
 - Achieving benchmarks from FY 2016/2017 to 2018/2019
 - National benchmark for primary hip and knee replacement was 26 weeks
 - All three sites somewhat erratic performance at achieving benchmarks
 - Modest improvement noted at Concordia Hospital
 - Decline at Grace Hospital
 - Median wait times (weeks) from FY 2016/2017 to 2018/2019
 - National benchmark for primary hip and knee replacement was 26 weeks
 - Primary knee surgeries exceed the benchmark overall
 - Grace Hospital median wait times (weeks) are disproportionately high
- Cataract Surgery
 - Number of procedures from FY 2016/2017 to 2018/2019
 - Exclusively two sites (Misericordia and Western Surgery)
 - Misericordia volume is substantially higher and increasing
 - Western Surgery volume is substantially lower and flat
 - Achieving benchmarks from FY 2016/2017 to 2018/2019
 - National benchmark for cataract surgery is 16 weeks
 - Overall, WRHA is underperforming relative to the benchmark
 - Trend at Western Surgery is improving
 - Number of patients waiting for cataract surgery from FY 2016/2017 to 2018/2019
 - Approximately 5,000 and increasing

- Cardiac Surgery
 - Number of operating room visits from FY 2016/2017 to 2018/2019
 - Approximately 20% decline over the past ten years
 - Median wait times (days) from FY 2016/2017 to 2018/2019
 - General improvement over the past ten years
 - Coronary artery bypass graft median wait times (days) by CABG level, year, and month of service from FY 2016/2017 to 2018/2019
 - All data are within benchmark levels
 - Level one 0-14 days
 - Level two 15-42 days
 - Level three 43-180 days

D Emergency Department Activity

- Number of visits from FY 2016/2017 to 2018/2019
 - Overall decline with the possible exception of Health Sciences Centre, although it is trailing off over the past six months (please refer to the most current data)
- Number of visits per day from FY 2016/2017 to 2018/2019
 - Overall decline, again with the possible exception of Health Sciences Centre, although it is trailing off over the past six months
- Number of visits per day CTAS 1,2, and 3 (resuscitation, emergent, urgent) from FY 2016/2017 to 2018/2019
 - Relatively flat overall
 - Paediatric volumes at Health Sciences Centre up sharply from Q.3 of 2016/2017
 - Adult volumes at Health Sciences Centre also rising but not as sharply
- Number of visits per day CTAS 1 and 2 (resuscitation and emergent) from FY 2016/2017 to 2018/2019
 - Relatively flat overall
 - Volume at St. Boniface Hospital up sharply during last quarter of 2017
 - Volume at Health Sciences Centre declined from second quarter 2018
- Number of visits per day CTAS 4 and 5 (less urgent and non-urgent) from FY 2016/2017 to 2018/2019
 - Overall, CTAS 4 and 5 are down across the WRHA
 - Concordia Hospital CTAS 4 and 5 activity ceases in Q.4 2017
 - Misericordia and Grace Hospital CTAS 4 and 5 activity falling since Q.3 2017
 - Seven Oaks General Hospital CTAS 4 and 5 activity increasing since Q.3 2017
- Average wait times to be seen all CTAS levels FY 2016/2017 to 2018/2019
 - Modest decline until Q.4 2017
 - Rise in Q.4 2018
 - Concordia Hospital has had the longest wait times overall

- Average wait times to be seen CTAS 1, 2, and 3 FY 2016/2017 to 2018/2019
 - Modest decline until Q.4 2017
 - Rise in Q.4 2018
 - Again, Concordia Hospital has had the longest wait times overall
- Average wait times to be seen CTAS 1 and 2 FY 2016/2017 to 2018/2019
 - Similar patterns and distribution
 - Health Sciences Centre (children) jumps in Q.4 2017
- Average wait times to be seen CTAS 4 and 5 FY 2016/2017 to 2018/2019
 - Q.1 of each year demonstrates peaks
 - Concordia Hospital consistently higher than other sites
- Length-of-stay (hours) for all visits FY 2016/2017 to 2018/2019
 - Overall, relatively unchanged (and fluctuating)
 - Misericordia ceased by Q.4 2017
 - Victoria General Hospital dropped in Q.4 2017
 - Other sites experienced an increased LOS from Q.3 2018
- Length-of-stay (hours) CTAS 1,2 and 3 FY 2016/2017 to 2018/2019
 - Overall, relatively unchanged (and fluctuating)
 - Misericordia ceased by Q.4 2017
 - Victoria General Hospital dropped in Q.4 2017
 - Other sites experienced an increased LOS from Q.3 2018
- Length-of-stay (hours) CTAS 1 and 2 FY 2016/2017 to 2018/2019
 - Overall, relatively unchanged (and fluctuating)
 - Misericordia ceased by Q.4 2017
 - Victoria General Hospital dropped in Q.4 2017
 - Other sites experienced an increased LOS from Q.3 2018
 - Spike in Q.1 2017 at Concordia Hospital

- Length-of-stay (hours) CTAS 4 and 5 FY 2016/2017 to 2018/2019
 - Overall, relatively unchanged (and fluctuating)
 - Misericordia ceased by Q.4 2017
 - Victoria General Hospital dropped in Q.4 2017 and rose again in Q.1 2019
 - Other sites experienced an increased LOS from Q.3 2018
 - Spike in Q.1 2017 at Grace Hospital
- Other indicators FY 2016/2017 to 2018/2019
 - % left without being seen, % left against medical advice, % deaths, %LOS > 24 hours, % external transfer, % admitted as inpatient, % discharge home, % ambulance visits
 - Wide variation across sites
 - CTAS 4 and 5 deaths virtually zero
 - St. Boniface Hospital had > 8% of CTAS 1 to 3 visits stay > 24 hours and admitted nearly 23% of this group (only Health Sciences Centre was higher at nearly 24%)
 - Misericordia discharged the greatest percentage of CTAS 1 to 3 (90%) to home
 - Concordia Hospital and Misericordia transferred the greatest percentage of CTAS 1 to 3 (3.6%) to other sites
 - Grace Hospital received the greatest percentage of ambulance visits
 - The four leading EDIS categories were gastrointestinal highest proportion at Grace Hospital), cardiovascular (highest proportion at St. Boniface Hospital), and orthopaedic (highest proportion at Concordia Hospital and Misericordia)
- Average age FY 2016/2017 to 2018/2019
 - Increased age (about 2+ years on average) at Grace Hospital in Q.4 2017 at the same time there was a decreased age at Victoria General Hospital (from 48 years to 44 years)
 - Concordia Hospital age increased from 48-49 years to 50-51 years and has been falling thereafter
 - Seven Oaks General Hospital has experienced a gradual increase in age

- Until ceasing emergency service in Q.3 2017, Misericordia demonstrated a relatively younger population
- The lowest average age cohort overall was Health Sciences Centre at 43-44 years
- Daily visit volume FY 2016/2017 to 2018/2019
 - General decrease in daily volume across WRHA with seasonal variation from approximately 900 to approximately 840 per day
- Changes in service configuration FY 2016/2017 to 2018/2019
 - The reorganization process was implemented to make changes to the system in order to improve service delivery and overall care
 - Change creates disruption and is often associated with unintended consequences and challenges, both of which require management
 - Overall, the data demonstrate a system in change, as expected
 - Some changes are to be expected even if there is no structural change process in play; for example, population changes can drive system response changes – even though the perspective of this review is over a relatively short period (3 fiscal years), it was noted that populations within some age cohorts have changed substantially (in particular, within older age cohorts, which are primary users of health system resources)
 - The bed map (slides 16-19) demonstrates changes that have been taking place over the past two fiscal years; in addition, emergency department activity is being reconfigured
- Summaries of emergency department visits FY 2016/2017 to 2018/2019
 - Overall decline in number of visits from FY2016/2017 to 2018/2019 due to drop in CTAS 4-5 in Q4 2017 when Concordia ceases CTAS 4-5 activity (slides 40-44)
 - HSC (Children) CTAS 1-3 volume up sharply Q3 2017
 - St. Boniface CTAS 1-1 volume up sharply Q4 2017 and HSC down in 2018
 - Modest decline in overall wait times until Q4 2017, then sharp rise in Q4 2018 (Concordia shows longest waits) (slides 45-48)
 - ED (LOS) relatively unchanged (fluctuating) overall during the period

- Misericordia discontinued Q4 2017; Victoria ED (LOS) dropped sharply at the same time (slides 49-52) but has risen by 33% in 2019 (urgent care)
- Variation in other ED indicators across sites (slides 53-54)
- Increasing age among ED visitors in general, except at Victoria
- Redistribution of visit volumes across WHRA sites (slide 56)

E Inpatient Activity

- **Acute inpatient and mental health discharges FY 2016/2017 to 2018/2019 (3 quarters)**
 - HSC and St. Boniface inpatient discharges have climbed steadily over the period
 - Others have remained relatively flat except at VGH which demonstrated a drop after Q.3 2017
 - Inpatient days (acute and ALC) declined gradually during the period, while other sites have been relatively flat except for a slight decline at VGH
 - Acute days and ALC track closely; however, ALC days as a proportion of overall days have declined, but with early indicators that this is reversing by Q.4 2018
 - Some lengthy ALC stays skew the results; VGH had the lowest proportion of ALC cases with ALC days up to one week; Concordia Hospital demonstrated the best overall ALC performance
- **Acute inpatient and mental health average resource intensity weights (RIW) per day FY 2016/2017 to 2018/2019 (3 quarters)**
 - Overall average RIW per day remained relatively flat over the period
 - Slight increase at Concordia Hospital and drop at VGH after Q.3 2017
- **Use of special care units (SCU) FY 2016/2017 to 2018/2019 (3 quarters)**
 - Overall use fell early in the period but increased through Q.3 2017 and 2018, with HSC driving the trend line
 - Step down surgical unit tracked the overall SCU reporting; spike in August 2018 at HSC and slight decline at St. Boniface Hospital
 - Medical ICU use tracked the overall SCU reporting without a discerned pattern of change
 - Neonatal ICU tracked the overall SCU reporting; no discerned change at St. Boniface Hospital, but two patterns identified at HSC: larger unit undulating while smaller unit gradually rose then declined over the period
 - Cardiac intensive care nursing units and coronary intensive care nursing units demonstrated lower activity at HSC; at St. Boniface Hospital, the coronary ICU tracked upwards whereas cardiac ICU activity is declining

- Patient origin and destination FY 2016/2017 to 2018/2019 (3 quarters)
 - Declining numbers of people arriving from home, with arrivals from acute care increased somewhat from Q.4 2017 and then declined in the last half of 2018
 - Declining numbers of people going home after discharge with a rise in the number of people discharged with home support and somewhat higher numbers sent to a different acute care facility
- Admission category FY 2016/2017 to 2018/2019 (3 quarters)
 - Stable elective admissions and newborns over the period
 - Volatile numbers of emergent/urgent cases, first rising through 2017 and falling off in 2018
 - Arrivals by ground ambulance only remained stable and represented a small proportion of overall arrivals to hospital; arrivals by a combination of ground and air ambulances were similar to those not arriving by ambulance
 - Numbers not arriving by ambulance were stable through 2017 and fell in the latter half of 2018
 - The proportion of inpatients arriving through the emergency department rose through 2017 and declined in the latter half of 2018
- Major clinical categories (MCCs) FY 2016/2017 to 2018/2019 (3 quarters)
 - The top nine MCCs were consistent throughout the period with somewhat decreased volumes in Q.4 2018; these MCCs account for 77% of overall inpatient activity
- Changes in service configuration FY 2016/2017 to 2018/2019
 - Elective admissions remained flat, as did newborns; there was volatility in the numbers of emergent / urgent admissions;
 - After being somewhat stable through 2017, the numbers of patients not arriving by ambulance has fallen substantially in the latter half of 2018
 - Those arriving through the emergency department moved marginally higher in 2018; there was a slight decrease in the latter half of the year, but it would be too early to tell if this is an ongoing trend

- The proportion of those arriving through the emergency department rose through 2017, but declined in the latter half of 2018
- There was a very slight rise in those going home with support
- The patterns of case volumes among the top MCCs looked consistent throughout the period, with somewhat decreased volumes in the last quarter of 2018
- Summaries of inpatient activity FY 2016/2017 to 2018/2019
 - Fewer signs of adjustments than the emergency department analysis revealed – this is a positive result
 - There are a few minor issues that should be monitored and these appear to be linked largely with activity in the emergency departments
 - To reiterate, these results do not reflect what may be happening from an operational perspective, such as staffing and physician resourcing
- Summaries of combined emergency department and inpatient activity FY 2016/2017 to 2018/2019
 - The reorganization process was implemented to make changes to the system in order to service delivery and to improve care overall
 - Change creates disruption and is often associated with unintended consequences and challenges to be managed
 - Overall, the data demonstrate a system in change, as expected
 - Some change was likely to occur even if there was no structural change process in play; for example, population changes can drive system response changes – even though the perspective of this review is over a relatively short period (three fiscal years), it was noted that populations within some age cohorts have changed substantially (in particular, within older age cohorts); older people are primary users of health system resources
 - The bed map (slides 10-13) demonstrates changes that have been taking place over the past two fiscal years; in addition, emergency department activity is being reconfigured
 - There are a few minor issues that should be monitored and these appear to be linked largely with activity in the emergency departments

- The inpatient analysis shows fewer signs of adjustments than the emergency department analysis revealed, which is a positive result
- These results do not reflect what may be happening from an operational perspective, such as staffing and physician resourcing

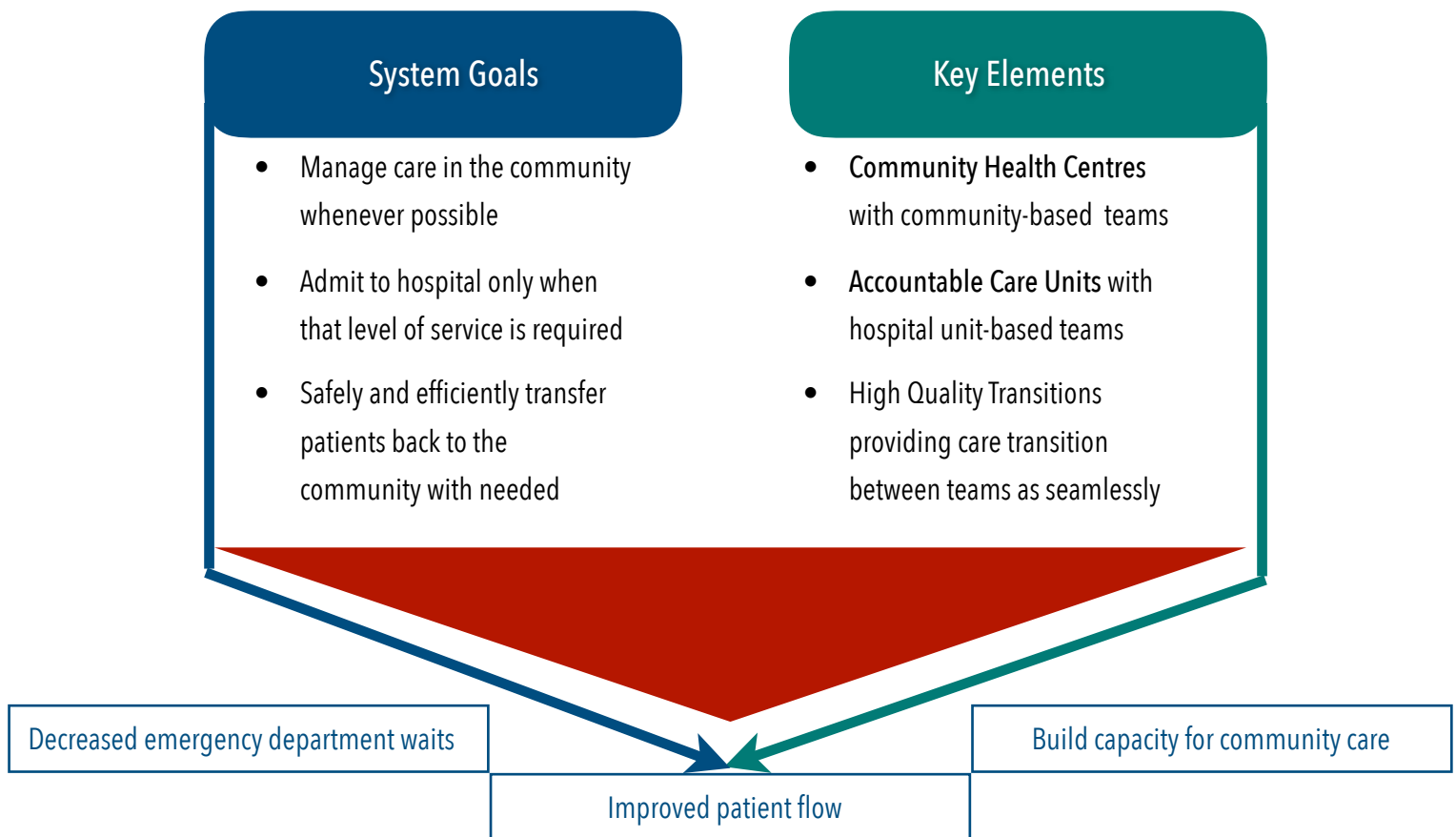


5.0 Considerations of Jurisdictional Lessons

Canadian healthcare is, to some degree, a living laboratory of models of care and delivery initiatives. Two have been identified as potentially useful considerations going forward in Manitoba. In addition, there is a good reference point from the National Health Service England.

5.1 Accountable Care Unit

An Accountable Care Unit (ACU) is part of a redesign of healthcare delivery piloted in for the past three years in Saskatchewan and founded on patient-centred and sustainable care, today and in the future.²⁰



²⁰ This summary abstraction is taken from background information available at Saskatchewan Health

Accountable care units have four features that differ from traditional care units:

- Teams of physicians, nurses, occupational and physical therapists, dietitians, and social workers physically located together on the unit
- Standardized interdisciplinary bedside rounds, where members of the care team meet at the same time, every day, together with the patients and families
- Unit level performance reporting (measuring patient outcomes at unit level rather than hospital or system level leading to improved responses and care)
- Unit level nurse and physician co-leadership (on traditional units physicians are not included in unit management)

Consideration may be given to the opportunity afforded to transformation in Manitoba with the anticipated expansion of multidisciplinary MyHealthTeams (MHTs), ideally linked to remote sites, as well. MHTs are an obvious community anchor and could provide the foundation for the aligned Accountable Care Unit.

Ongoing evaluation processes in Saskatchewan will be followed.

5.2 Freestanding Emergency Centre

A freestanding emergency centre (FEC) is a facility licensed to provide 24-hour emergency services to patients at the same level as a hospital-based emergency room. FECs have roots in the United States, although there is current experience in Edmonton. While there is no comprehensive evaluation of FEC in a Canadian setting, it is a conceptual model to contemplate. More specifically, the presence of an FEC in WRHA is neither anticipated or recommended in the short-term, but cannot be ruled out in the longer-term based on need.

Typically, FEC is a health care facility that provides emergency care, but is completely separate from an acute-care hospital. These facilities will have transfer agreements with area hospitals so they can transfer patients who need to be admitted.

Some FECs are owned and run by hospitals; Independent FECs may be owned by physicians or other business interests, similar to the interests that helped develop the ambulatory surgery industry.

Typical services and characteristics are, as follows:

- Availability – 24 hours, seven days per week
- Practitioners – certified emergency medicine physicians

- Laboratory – Certified automated and point-of-care testing
- Imaging – Ultrasound, X-Ray, and CT While

5.3 National Health Service

In 2018, the National Health Service (NHS) England published an updated guide on the NHS England assurance process for service changes.²¹ It was designed to be used to assist in the navigation of a “clear path from inception to implementation” of decisions on service change.

Two statements are prominent:

“Demonstrate that sufficient alternative provision, such as increased GP or community services, is being put in place alongside or ahead of bed closures, and the new workforce will be there to deliver it...”

“The planning and development of reconfiguration proposals are rarely linear. The most successful proposals ensure continuous discussion and involvement of the local population and key stakeholders throughout the process.”

This treatise warrants full review in the context of this report on quality assurance; key points have been selectively abstracted, as follows:

- There is no legal definition of service change but broadly it encompasses any change to the provision of NHS services which involves a shift in the way front line health services are delivered, usually involving a change to the range of services available and/or the geographical location from which services are delivered.
- Service changes should align to local Sustainability and Transformation Partnership plans and the service, sustainability and investment priorities established within them.
- NHS commissioners and providers have duties in relation to public involvement and consultation, and local authority consultation. They should comply with these duties when planning and delivering service change.
- The range of duties for commissioners and providers covers engagement with the public through to a full public consultation. Public involvement is also often referred to as public engagement.

²¹ *Planning, assuring, and delivering service change for patients*, Operations and Information Business Unit, 01 March 2018

- Where substantial development or variation changes are proposed to NHS services, there is a separate requirement to consult the local authority. This is in addition to the duties on commissioners and providers for involvement and consultation set out above.
- Where a proposal for substantial service change is made by the provider rather than the commissioner, the 2013 Regulations require the commissioner to undertake the consultation with the local authority on behalf of the provider.
- In practice, where there are public involvement and consultation duties on both commissioners and providers it should be possible to coordinate and consolidate any involvement and consultation requirements so that they are run in parallel to consultation with any relevant local authorities. In those circumstances a provider can make arrangements to satisfy its duty to involve and consult service users through a commissioner led consultation. Nevertheless, providers would need to engage with commissioners and address consultation responses in order to comply with their duties.
- There is no legal definition of 'substantial development or variation' and for any particular proposed service change commissioners and providers should seek to reach agreement with the local authority on whether the duty is triggered. Regular local authority engagement should continue through the lifecycle of service change.
- Service reconfiguration and service decommissioning are types of service change.
- Change of site from which services are delivered, even with no changes to the services provided, would normally be a substantial change and would therefore require consultation with the local authority and public consultation.
- Effective service change will involve full and consistent engagement with stakeholders including (but not limited to) the public, patients, clinicians, staff, neighbouring STPs and Local Authorities.
- All service change should be assured against the government's four tests:
 - Strong public and patient engagement
 - Consistency with current and prospective need for patient choice
 - A clear, clinical evidence base
 - Support for proposals from clinical commissioners

- Where appropriate, service change which proposes plans significantly to reduce hospital bed numbers should meet NHS England's test for proposed bed closures and commissioners should be able to evidence that they can meet one of the following three conditions:

- Demonstrate that sufficient alternative provision, such as increased GP or community services, is being put in place alongside or ahead of bed closures, and the new workforce will be there to deliver it

and/or

- Show that specific new treatments or therapies, such as new anti-coagulation drugs used to treat strokes, will reduce specific categories of admissions

or

- Where a hospital has been using beds less efficiently than the national average, that it has a credible plan to improve performance without affecting patient care (for example in line with the Getting it Right First Time program)
- Prior to public consultation NHS England will assure proposals for substantial service change in accordance with the process set out within this guidance.
- For any service change requiring public consultation which also requires capital funding, NHS England and NHS Improvement will assess any proposals to provide assurance that they do not require an unsustainable level of capital expenditure and that they will be affordable in revenue terms.
- Not all substantial service changes require capital expenditure. However where this is the case and the scheme has been assessed by NHS England and NHS Improvement as having a reasonable expectation that the level of capital required will be available, public and local authority consultation should be undertaken before a Strategic Outline Case for capital funding is submitted to NHS Improvement.



6.0 Medical Remuneration

Assessments of medical remuneration are typically complex and require identification and harmonization of multiple variables in order to be considered valid. Underpinning considerations are that physician work is a product of total (pre-, intra-, post-) service time and intensity, where intensity is a metric that reflects the following:

- Knowledge and judgment
- Risk and stress
- Technical skills
- Communication skills

This quality assurance assessment was both open-ended and focused with respect to medical remuneration, open-ended in that unanticipated issues of remuneration may surface and focused in that a question has been raised with respect to remuneration for medical services in the Advance Coronary Care Unit (ACCU) at St. Boniface Hospital. There are polarized opinions on this issue and no valid data.

Distilling the qualitative information, the ACCU remuneration issues can be characterized as follows, with the referenced recognition that real-time data are absent and that opinions are neither uniform nor anticipated to be:

- There are unaddressed challenges in recruitment of available cardiological resources
- Descriptions of patient acuity vary widely, from sub-acute observation status to (proposed) increased acuity over time; it can be successfully argued that the current state is sub-acute and that remuneration cannot be based on a proposed future state
- Physician time in the daily provision of ACCU services is considerably less than that in the daily provision of critical care services; intensity of physician work, as described above, is considerably less in caring for ACCU patients than for critical care patients
- Factors of service time and intensity converge in a manner that, at least currently, can only support lesser time-based remuneration for ACCU physicians; the degree of lesser remuneration would require further datasets in order to provide an estimate; as well, the elements of physician work would need to be monitored over time to assess subsequent differentials

The estimated ACCU current occupancy rate calls into question any need to expand its bed capacity today.



7.0 Recommendations

Following are recommendations to Shared Health and Winnipeg Regional Health Authority; as referenced, they are intended to be focused and pragmatic, rather than inclusive of every issue identified in the report.

They are numbered for convenience but are not prioritized:

1. It is recommended that a comprehensive risk assessment of the Winnipeg region be undertaken by Shared Health, and include all hospitals and clinical programs (and updated existing risk assessments), focused on patient safety and optimal patient flow, and that a regional plan be derived accordingly
2. It is recommended that the current bed mapping be reviewed at the hospital sites as an interim measure, and be re-established according to the regional risk assessment
3. It is recommended that full analytic resources be sited at Shared Health
4. It is recommended that a detailed plan be established to ensure all elements of the immediate plan are in place, assigned, and built into an accountability framework
5. Early clinical governance is required for the province, protecting academic appointments where applicable; it is recommended that clinical governance be provincial in scope, sited at Shared Health, and replace existing clinical governance roles at WRHA
6. It is recommended that a Nursing Resource Task Force be struck immediately, and be constituted by representation of three members from Manitoba Nurses Union, and two members from each of Shared Health and Winnipeg Regional Health Authority, and an independent chair, with decisions to be made by consensus, and a reporting accountability to the Deputy Minister of Health, Seniors, and Active Living
7. It is recommended that the original concept in the 2017 Clinical and Preventive Services Plan be protected at this time, namely, active emergency departments at Health Sciences Centre, St. Boniface Hospital, and one community hospital (Grace Hospital), and urgent care centres at each of Concordia Hospital, Victoria General Hospital, and Seven Oaks General Hospital
8. The timing of opening additional urgent care centres is not yet precise; however, the opening of urgent care at Concordia Hospital is a priority; the opening of urgent care at Seven Oaks General Hospital will depend on the results and conclusion of regional risk assessment

9. It is recommended that the processes for implementation, as advanced by the National Health Service England, be the foundation of a regional implementation strategy
10. It is recommended that the Accountable Care Unit be encouraged across the region and also integrated with MyHealthTeams and evaluated as part of that model
11. It is recommended that the PECS model be funded on a priority basis in the province and that it be sited, initially and pending reassessment, at Concordia Hospital
12. The term subacute care has offered operational confusion without value identified by healthcare providers or administrators; the literature definition is not helpful either, namely, "specialized multidisciplinary care in which the primary need for care is optimization of the patient's functioning and quality of life;" in keeping with strongly expressed opinions, it is recommended that "subacute care" not be used as a level of care classification in the region until a consensus opinion can be attained across all hospital sites
13. It is recommended that Walk-In Connected Care (WICC) not be expanded beyond the current sites
14. There is value in the role of House Medical Officer (HMO); further development of this role requires explicit role affirmations stabilized funding, pending either re-evaluation or the implementation of an alternative model of care; it recommended that the HMO role be stabilized and then expanded according to the needs assessment
15. It is not recommended that two additional beds be opened in the Advanced Coronary Care Unit
16. It is valid to expand the number of alternative funding models for a number of disciplines and to redevelop the methodology for developing the scale and relationships to a fee-for-service model, with physician work defined as $\text{time} \times \text{intensity}$ where intensity is a factor of knowledge and judgment, technical skills, risk and stress, and communication skills
17. It is recommended that the needs assessment that underpinned the Clinical and Preventive Services Plan (2017) be refreshed and maintained in real time
18. It is recommended that the final step in this revised phase be its full regional operationalization



A.0 Appendices

A.1 Interview List

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A.2 Tabulated 2017 Recommendations

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A.3 Data Compendium

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A.1 Interview List

Following is a list of those interviewed to inform the qualitative assessment of Phase Two:

- Jasdeep Atwal (FNIHB)
- Beth Beaupre (Shared Health)
- Claire Betker (MHSAL)
- Clinical Specialty Leadership
 - Dr. Jose Francois
 - Dr. Jack McPherson
 - Dr. Bojan Paunovic
 - Dr. Eberhard Renner
 - Dr. Chris Christodoulou
 - Lanette Siragusa
- Concordia Hospital
 - Katherine Graham
 - Dayna Green
 - Dr. David Hedden
 - Ken Hiebert
 - Tiffany Kautz
 - Lorianne Kowalyszyn
 - Dr. Peter Kuegle
 - Dr. Ainslie Mihalchuk
 - Valerie Wiebe
- Dr. Catherine Cook (Shared Health)
- Jeanette Edwards (WRHA)

- **Emergency Medical Services Manitoba**
 - Helen Clark
 - Dr. Rob Grierson
- **Dr. Ross Feldman (Cardiac Sciences)**
- **First Nations and Inuit Health Branch (Health Canada)**
 - Dr. Jasdeep Atwal
 - Dr. Brent Roussin
 - Pam Smith
- **Grace Hospital**
 - Shelly Keast
 - Kim Kummen
 - Dr. Ramin Hamedani
 - Corinne Newman
 - Kellie O'Rourke
- **Dr. Lesley Graff (Clinical Psychology)**
- **Karen Herd (Deputy Minister)**
- **Hip and Knee Institute**
 - Dr. Eric Bohm
 - Dr. David Hedden
 - Dr. Thomas Turgeon
- **Health Sciences Centre**
 - Dr. Perry Gray
 - Ronan Segrave
- **Health Sciences Centre Emergency Medicine**
 - Carol Legare
 - Dr John Sokal

- **Keir Johnson (WRHA)**
- **Manitoba Nurses Union**
 - Darlene Jackson
 - 17 front-line nurses from five hospitals
- **St. Boniface Hospital**
 - Martine Bouchard
 - Dr. Scott Brudney
 - Rhonda Findlater
- **Dr. Jitender Sareen (Psychiatry)**
- **Seven Oaks General Hospital**
 - Dr. Sean Armstrong
 - Brenda Badiuk
 - Katherine Glazner
 - Donna Kenny
 - Dr. Ricardo Lobato de Faria
 - Kora Otto-Shannon
 - Rose Schwartz
- **Shared Health**
 - Olivia Baldwin
 - Helen Clark
 - Jeanette Edwards
 - Dr. Perry Gray
 - Ronan Segrave
 - Ian Shaw
 - Lanette Siragusa
 - Dr. Brock Wright

- **Victoria General Hospital**
 - Brenda Catchpole
 - Rachel Ferguson
 - Donna Romaniuk
 - Dana Rudy
 - Shawn Young
- **Barbara Wasilewski (Shared Health)**
- **WRHA**
 - Real Cloutier
 - Lori Lamont
 -
 - Dr. Bruce Roe
 - Gina Trinidad
 - Krista Williams
 -
 - Karen Dunlop
- **WRHA Emergency Medicine**
 - Dr. Alecs Chochinov
 - Wendy Ducharme
 - Randy Martins
- **WRHA Family Medicine**
 - Dr. Jose Francois
- **WRHA Mental Health**
 - Dr. Jitender Sareen
 - Kim Sharman
 - Joanne Warkentin

- **WRHA Cardiac Sciences**
 - Dr. Ross Feldman
 - Reid Love
 - Kiran Singh

A.2 Tabulated 2017 Recommendations

The following tabulation brings forward categories and recommendations determined in the 2017 report on *Clinical and Preventive Services Planning in Manitoba*. This table provides an anchor to subsequent and related activities in the province. Many of the recommendations do not relate directly to this assessment of the Phase Two work at the WRHA; however, they are all provided for context due to the interdependencies of recommendations.

It is important to position recommendations in the context of the qualitative and quantitative analytics upon which they have been derived. As the underpinning qualitative and quantitative data mature, opinions may vary, generally more likely along timelines than content and models of care. This demonstrates the fundamental need for real-time needs assessments and services planning, particularly when built on a solid foundation.

The recommendations are contemplated within seven categories:

- Clinical governance
- Core services
- Models of care
- Consolidating services
- Ministry of Health, Seniors, and Active Living
- Digital health
- Future planning

Relevant cross-linkages to the current assessment have been highlighted; however, as already referenced, this carries risk of fragmentation of the complete picture of a provincial healthcare system.

A	Clinical Governance
	It is recommended that:
A-01	Clinical governance be developed provincially and be centralized in support of the delivery of health services and measurement of their outcomes.
A-02	Clinical governance be established early during implementation following the identification of leadership and reporting lines.
A-03	The responsibilities of clinical governance be considered as recommended in Exhibit 6-02 of the report.
A-04	A work plan and strategy be drafted for clinical governance as a priority of implementing the clinical and preventive services plan.
A-05	A role description for clinical governance and its leadership be drafted as a priority of implementing the clinical and preventive services plan.
A-06	The draft work plan, strategy, and role descriptions require approval by the Deputy Minister of Health, Seniors, and Active Living.

B	Core Services
	It is recommended that:
B-01	The core services include comprehensive and collaborative primary care, general internal medicine, general paediatrics, general psychiatry, obstetrics and gynecology (normal newborn), general surgery, diagnostic imaging, and general pathology.
B-02	The core services distribution by community type be confirmed in accordance with Exhibit 9-03.
B-03	The planning assumptions for core service specialists be confirmed in accordance with Exhibit 9-04.
B-04	The base, low, and high case scenarios for the core specialist model be confirmed for core service communities in accordance with Exhibits 9-05, 9-06, and 9-07.
B-05	The net on-call ratio for core service specialists should not exceed one-in-three where possible.

C	Models of Care
	It is recommended that:
	Home Care
C-01	The information infrastructure for home care services be upgraded and provincial in scope.
C-02	Home care services be expanded in scope and funding to include Indigenous communities.
C-03	Training for home care aides be upgraded to match acuity.
C-04	Provincial standards for home care services be established and applied to ensure equity and access in all regions and that the constant goal be an interface with the rest of the healthcare system.
	Indigenous Peoples
C-05	The leadership of Indigenous peoples be active participants in all discussions relating to healthcare equity and access for Indigenous peoples.
C-06	Indigenous peoples be provided with autonomy and assistance in managing healthcare in partnership with provincial healthcare resources in order to achieve and maintain quality of care, safety, and required adjustments in a supportive healthcare model, including support for traditional healing and examination of an Indigenous healthcare system led by First Nations
C-07	The leadership of the Northern Regional Health Authority resolve the silos of care that impede optimal care in the region, including challenges evident through the co-existence and relationships among the health authority, the Churchill Health Centre, the Northern Medical Unit, the transportation infrastructure, home care services, and Amdocs, and that this is undertaken to achieve equity and reasonable access.
C-08	The Northern Regional Health Authority provide leadership in achieving diagnostic and therapeutic services to be provided as close to home as possible for Indigenous peoples, when safe and reasonable to do so, and that cooperation be sought from the Ministry of Health, Seniors, and Active Living, the University of Manitoba Faculty of Health Sciences, and Diagnostic Services Manitoba.
	Maternal Health
C-09	The establishment of a provincial program of maternal care include anaesthesiology, neonatology, maternal-fetal medicine (including a northern program with travel clinics), family medicine, obstetrical nurses, and midwifery services (as part of a hospital setting).
C-10	Hospitals providing obstetrical deliveries and newborn care satisfy provincial standards and volume thresholds that are sensitive to travel requirements, leading to a model of regional centres
C-11	A comprehensive perinatal database for Manitoba be established.
	Mental Health and Addictions
C-12	The administration of Selkirk Mental Health Centre be transferred to Winnipeg Regional Health Authority or a provincial entity.

C	Models of Care
	It is recommended that:
C-13	There be an early expansion of crisis stabilization units under the guidance of the provincial mental health and addictions lead.
C-14	There be support and expansion of Rapid Access to Consultative Expertise.
C-15	There be an accelerated stepwise expansion of the Program of Assertive Community Treatment.
C-16	<p>That the provincial lead for mental health and addictions be supported in a restructure of all related services, and that regional hubs outside of Winnipeg Regional Health Authority be:</p> <ul style="list-style-type: none"> Provincial (Selkirk Mental Health Centre) IERHA (Pine Falls Hospital) SH-SS (Portage Hospital; Boundary Trails Hospital; Steinbach Hospital) PMH (Brandon Hospital; Dauphin Hospital; Swan River Hospital) NRHA (Thompson Hospital; The Pas Hospital; Flin Flon Hospital)
C-17	The provision and uptake of addiction services in Manitoba be recognized as unsustainable with the current resource allocation; and, the provincial program be assessed for its baseline status and the status one year after administrative merger with mental health services.
C-18	Programs be expanded for forensic psychiatry, sexual assault, victimization, and victims of assault.
C-19	<p>The deficiency of doctoral clinical psychologists be addressed through educational and recruitment initiatives and that the roles of doctoral clinical psychologists be considered, as follows:</p> <ul style="list-style-type: none"> Existing roles in tertiary centres Members of MyHealthTeams to include rotations to rural and remote communities Referral assessments for psychiatric services to determine urgency and appropriate therapeutic streams
C-20	Mental health and addiction funding be diverted from general practitioners other than those with recognized training.
C-21	An adolescent suicide prevention strategy be supported at the provincial level at the earliest possible date.
C-22	Tele-psychiatry be expanded with support from Manitoba eHealth.
	Older Adults
C-23	Services provided in the care of older adults and rehabilitation in WRHA be expanded through community hospital restructuring as part of consolidated services.
C-24	Personal care homes across Manitoba be expanded, as required, after completion of consolidated services enables an accurate determination of actual need.

C	Models of Care
	It is recommended that:
	Palliative Care
C-25	The funding for comprehensive palliative care be stabilized in Manitoba, especially in support of care to Indigenous peoples.
C-26	A multi-jurisdictional working group headed by Indigenous leadership be established to explore and address barriers to palliative care in Indigenous communities where each community is identified as socially, culturally, and spiritually unique and end-of-life issues impact on all of these.
C-27	Under the guidance of the provincial palliative care lead, a provincial leadership team develop a role in facilitating consistent standards and symptom management guidelines.
C-28	Regional palliative care leadership teams be constituted by a full-time physician, nurse, psychosocial specialist, and, where required, a spiritual care specialist defined by cultural diversity.
C-29	The use of both telehealth and palliative care nurse practitioners be expanded in Manitoba as integral parts of the provincial palliative programs.
	Primary Care
C-30	Manitoba utilize the combined impact of primary care modeling and replacement recruitment to change the percentage of family physicians in the workforce (excluding special interests) from 38% to 27% by 2025 and increase the number of non-physician healthcare professionals proportionately.
C-31	Manitoba utilize the combined impact of primary care modeling and replacement recruitment to increase the number of primary care practitioners by 3.7% from 1 FTE per 975 population to 1 FTE per 940 population.
C-32	By 2025, the mix of providers change from 1.0 FTE nurse practitioner and physician assistant per 7.7 FTE family physicians to 1.0 FTE to 2.0 FTE family physicians.
C-33	Existing models of primary care services (Physician Integrated Networks, fee-for-service, fee-for-service with incentive payments, ACCESS centres, community health clinics, Quick Care, and teaching clinics) continue to be supported during planned primary care transformation in Manitoba, until such time as providers decide to change their extant model of care.
C-34	That existing models of primary care services be integrated with MyHealthTeams (MyHT) when the principals of each model agree to an integration.
C-35	A funding model be established for MyHealthTeams (MyHT), and consideration be given to a hybrid model with base funding and a modified benefit schedule for physicians and a salary model for the other healthcare professionals.
C-36	MyHealthTeams (MyHT) be expanded in Manitoba and include a minimum roster of providers (numbers to be determined through the report formula) that include physicians, nurses, nurse practitioners, psychologists, dietitians, physiotherapists, occupational therapists, and pharmacists.

C	Models of Care
	It is recommended that:
C-37	Each MyHealthTeam (MyHT) be linked to a remote community selected by the Ministry of Health, Seniors, and Active Living, as determined by needs-based assessments and priorities, and that each remote community maintain direct electronic communication with that MyHT on a regular basis, as required, and that the MyHT healthcare professionals maintain regular rotations through the remote community.
C-38	The preferred model of care in rural and remote communities be a community health centre staffed by nurse practitioner(s) and physician assistant(s), with clusters of these communities also served by an advanced care paramedic.
C-39	An annual report from each MyHealthTeam (MyHT) be submitted to the Deputy Minister of Health, Seniors, and Active living with respect to services provided to remote communities and evidence of the outcomes of those services.
	Public and Population Health
C-40	Investment in public health and mental health and addictions are the two most critical funding challenges for Manitoba with the greatest return on investment.
C-41	Public health initiatives have a greater potential to succeed if incorporated into system-wide organizational change.
C-42	Public health and prevention incorporate Indigenous leadership and training.
C-43	"Health in all policies" be encouraged across departments in the Government of Manitoba and be led by public health experts.
C-44	Prevention and health equity strategies be strongly emphasized through provincial governance.

D	Consolidating Services
	It is recommended that:
D-01	Facilities outside of the Winnipeg Regional Health Authority, but in proximity to it, be assessed for the capacity and interest in availability to provide day surgery and inpatient surgery to be performed by specific disciplines.
D-02	General surgery services in Winnipeg Regional Health Authority be consolidated to three sites (St. Boniface General Hospital, Health Sciences Centre, and one community hospital) and that resources made available in the remaining community hospitals be designated for convalescent and rehabilitation services.
D-03	Orthopaedic surgery services in Winnipeg Regional Health Authority be consolidated to three sites (St. Boniface General Hospital, Health Sciences Centre, and one community hospital) and that resources made available in the remaining community hospitals be designated for convalescent and rehabilitation services.
D-04	Critical care units in Winnipeg Regional Health Authority be consolidated to three sites (St. Boniface General Hospital, Health Sciences Centre, and one community hospital) and that the Emergency Departments in the other three community hospitals become urgent care centres; and, that cardiac critical care be contemplated separately from these critical care units.
D-05	Acute care internal medicine beds in Winnipeg Regional Health Authority be consolidated to three sites (St. Boniface General Hospital, Health Sciences Centre, and one community hospital) and that resources made available in the remaining community hospitals be designated for convalescent and rehabilitation services.
D-06	All rural hospitals in Manitoba be assessed independently to determine the propriety of continuing to be designated as a hospital, the nature of the use of its beds, and the continuing provision of Emergency Department services.
D-07	All rural hospitals in Manitoba be assessed independently to determine the propriety of continuing to provide obstetrical delivery and care of newborn services.
D-08	Where it is determined independently that the nature of the use of hospital beds will change, and/or that the Emergency Department will close or change to urgent care, and/or obstetrical delivery and care of newborn services will be discontinued, the clinical governance will assess whether replacement regional services are available or can be made available.
D-09	Cataract surgery services be tendered for consideration for provision at private sites, but continuing to be publicly funded services.
D-10	Spinal surgery be consolidated at a single site in the Winnipeg Regional Health Authority.
D-11	Facilities outside of the Winnipeg Regional Health Authority, but in proximity to it, be assessed for the capacity and interest in providing day surgery and inpatient surgery to be performed by specific disciplines.
D-12	The clinical governance assess all rural hospitals in Manitoba for critical mass and satisfactory outcomes of day surgery and inpatient surgery, and the suitability for specific itinerant surgical procedures, and where it is decided that either or both of critical mass or outcomes are deficient, regional consolidation for these services will be facilitated.

E	Ministry of Health, Seniors, and Active Living
	It is recommended that:
E-01	Operational oversight be enhanced for Emergency Health Services at a provincial level, with the initial focus on access, equity, and provincial standards, and that the Provincial Emergency Consultation Service be fully implemented
E-02	The scope of the Provincial Health Contact Centre be expanded to provincial.
E-03	The Ministry of Health, Seniors, and Active Living and Health Canada address the disadvantage that results from separate funding streams to Indigenous peoples and jointly correct this to achieve equity and reasonable access.
E-04	<p>The Ministry of Health, Seniors, and Active Living provide leadership in the following areas:</p> <ul style="list-style-type: none"> • Improve support for healthcare workers in Indigenous communities • Address prejudice among healthcare workers • Provide benefits for Indigenous peoples not recognized by the Indian Act • Place less addictive pharmaceutical options on the formulary • Make trauma-informed care the standard of care • Increase the presence of public health initiatives in Indigenous communities • Increase mental health and addiction services to Indigenous peoples through psychological resources on connected MyHealthTeams
E-05	Mental health and addictions be reunited as a division of the Ministry of Health, Seniors, and Active Living.
E-06	Diagnostic imaging services in the province be managed as a provincial program, like laboratory services, within Diagnostic Services Manitoba or another organization, as designated by the Ministry of Health, Seniors, and Active Living and the clinical governance

F	Digital Health
	It is recommended that:
F-01	The use of telemedicine be broadened to be available consistently in distant rural and remote communities.
F-02	The use of eConsultation be initiated in Manitoba through Manitoba eHealth and time-based funding by the Ministry of Health, Seniors, and Active Living.
F-03	Manitoba eHealth be asked to define the business scenarios and benefits from consumer engagement, virtual care, integration and advanced analytics, including the necessary infrastructure investments to connect partners, locations, providers, and patients across the province.
F-04	Manitoba eHealth craft a strategy for a general approach to predictive analytics and precision medicine that includes real-time clinical decision-support for medication ordering.
F-05	Manitoba eHealth report on a six-monthly basis to the leadership of clinical governance on achievements and opportunities to develop technology-enabled strategies for the next generation of digital health, addressing the challenges that Manitoba faces in the healthcare environment as industry value, economic, and health models continue to shift.
F-06	A provincial strategy be developed to provide direction and to establish a footprint that enables new capabilities for digital health through partnerships, collaboration, and an improved understanding of the investment.
F-07	A provincial electronic prenatal record be established in cooperation with Manitoba eHealth.
F-08	Electronic surveillance technology be funded for public health in Manitoba.

G	Future Planning	
	It is recommended that:	
i	The Foundation	
G-01	The principles of clinical and preventive services planning as listed in the final report continue to underpin clinical and preventive services planning in Manitoba.	
G-02	The base case scenario and forecast be the strategic direction and framework of the clinical and preventive services plan for Manitoba to 2025.	
G-03	The basic tenets of clinical and preventive services planning in Manitoba are role optimization of providers and the provision of patient-centred care.	
G-04	Nurse practitioners and physician assistants assume progressive roles in healthcare services in Manitoba, and that these roles be coordinated by the provincial clinical leads and the provincial clinical governance.	
G-05	The numbers of nursing and allied health professionals be adjusted proportionately to the roles and models of care and include role optimization.	
G-06	Recruitment and retention of physicians be centralized in Manitoba and no longer be undertaken at the regional levels; this is best undertaken by a provincial agency with a requirement to report, at least quarterly to the Health Workforce Secretariat and the clinical governance	
ii	The Model	
G-07	Each clinical service in Manitoba be considered a provincial program, rather than regional, and that a provincial lead be appointed for each service, with reporting responsibility to the clinical governance.	
G-08	The high case and low case forecasts be the upper and lower boundaries for the various disciplines to 2025.	
G-09	Implementation of the workforce planning model is led by an implementation group, in concert with the clinical services plan led by the clinical governance.	
G-10	An annual review confirm the continuing alignment of clinical and preventive services planning with the strategic direction of the government of Manitoba.	
G-11	The adjusted population needs-based model be formalized as the methodology and policy of the Ministry of Health, Seniors, and Active Living, and that needs be the basis of planning rather than demand.	
G-12	A skilled unit with a provincial mandate be assigned responsibility for the use, maintenance, and enhancement of the resource planning model, in concert with the clinical services plan led by the clinical governance.	
G-13	The College of Medicine and the Ministry of Health, Seniors, and Active Living review the size of the undergraduate medical program and the size and mix of the postgraduate medical program in consideration of the number of funded seats, retention in Manitoba, ratio of generalists to subspecialists, and the identified variables of supply.	
G-14	The workforce ten-year planning forecasts be updated on an annual basis so that they are compared to actual results.	

G	Future Planning	
	It is recommended that:	
iii	The Data	
G-15	A robustly engineered database support all relevant views that include, but are not limited to, licensed and functional specialties, clinical FTE, academic FTE, and administration FTE, alternative payment FTE, address of primary practice location, and academic rank or status, and other elements to be considered.	
G-16	Academic FTE be linked to a named individual and be allocated to clinical, academic, and administration components with notation of percentage allocations.	
G-17	<p>The planning model be maintained, as follows:</p> <ul style="list-style-type: none"> • Family physician special interest profiles • NIPM/RFA adjustment • Age adjustment • Death rate adjustment • Gender adjustment • Work hours (hold at zero impact unless contrary evidence) • Benchmark FTE adjustment • Population adjustment • Relative burden of illness • Models of care: <ul style="list-style-type: none"> • Core services • Diagnostic services • Emergency medical services • Medical services • Mental health and addiction services • Paediatric services • Primary health care • Physician extenders • Provincial programs • Public health services • Surgical services 	
G-18	All non-fee-for-service data be refined and reported in a defined, timely, accurate, and comprehensive manner.	
G-19	The Physician Appointment Information System (PAIS) be maintained as a provincial resource.	

A.3 Data Compendia

The underpinning data for this assessment are provided in a compendium as a companion document. These data are organized and collated in a logic model aligned with interpretations that are merged with the qualitative elements of the report as a process to ascertain conclusions and recommendations for consideration. In addition, the data compendium extends that of the 2017 report in facilitating the ongoing development of a real-time and unified database.

Please note slides 0 through 88 (data compendium one) are the analytics generated by Health Intelligence and that slides 89 through 172 (data compendium two) are the analytics generated by the WRHA. The WRHA slides have been included due to their comprehensiveness and relevance; the data acquisition and analytics conducted by Health Intelligence apply specific datasets constructed for this assessment and will vary from those of the WRHA, to some degree, by content, timelines, and analytics.